

BANK CARD TERMINAL COVER

Related Applications

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This application is a continuation-in-part application of the ~~continuation-in-part~~ application, Serial No. 09/131,352 filed 8/10/98, of the originally filed application entitled "Bank Card Terminal Cover", Serial No. 08/786,564, filed 01/17/97, now abandoned.

Background of the Invention

Field. This invention relates to covers. More particularly, it provides a crush resistant cover for a bank card terminal processing machine.

State of the Art. Numerous retailers utilize bank card processing terminals to pay for item sales. These bank card processing terminals are fairly sensitive to environmental hazards. They have card slots leading into the interior of the bank card terminal electronic circuitry to electronically read the information on the magnetic strips of customer bank cards. This information is then transmitted via cables operably associated with telephone lines leading to a main computer processor. These bank card processing terminals also include a key pad below a display screen to alternatively manually input a customer's bank card data and the amount of the sale. Presently there is no good protective device to prevent accidental contact damage to or environmental exposure of the bank card terminal. For example, some bank card terminal processing machines have a transparent plastic key pad cover covering the keys. These do not prevent dust, grime, grease, liquids, and food from accumulating in the card slot reader, causing damage to the electronics. These transparent plastic key pads become brittle and opaque through age and do not prevent damage to the terminals if accidentally hit by an object. Therefore, usage of these bank card terminal machines is generally restricted to a retailer's indoor office areas.

Other soft flexible plastic covers are used to cover the bank card terminal to prevent dust, grime, grease, liquids, and food from causing damage to the electronics. However, these soft plastic covers do not prevent accidental crushing of the bank card terminals.

One device, *Eppich* discloses an impervious modular crush resistant container into which electronic components are sealed therein to provide a rugged modular housing unit for protecting the electronic circuitry contained therein. As a sealed container, *Eppich* is unsuited for use as a bank card terminal container, which requires exposure of the internal circuitry via a card slot to read the magnetic strips of bank cards inserted therein. *Eppich* also does not shield the containerized electronic device itself from dropped objects. The shock of objects dropped on

Eppich is absorbed by the modular container itself. This can cause cracking or distortion of the container, which may affect the internal electrical component alignment.

There thus remains a need for a crush resistant cover with a closed top and extending sides defining an open bottom, which extends about and around bank card terminals to protect them from falling objects, liquids, dust, and grease. The invention described below provides such a device for fast food restaurants, auto repair shops, and other retailers wherein heavy objects and dust, grime and grease are routinely encountered near sales counters, or for outdoor use.

Summary of the Invention

The invention comprises a crush resistant terminal cover with sides defining an open bottom sized to fit about and over a bank card terminal processing machines having accessible card reading slots and keyboards, which are pervious to liquids, dust and grease. The cover is constructed of a rigid crush resistant material, which is also resistant to liquids, dust, and grease. The terminal cover has a top and sides which define an opening leading into an interior space, which fits about and accommodates a bank card terminal placed on a support surface. The sides of the cover contact the support surface to transfer the force from an accidental blow away from the bank card terminal and onto the support surface. The sides have at least one opening through which telephone terminal cords may be inserted and connected to the bank card terminal. The perimeter of the opening defined by the cover sidewalls may include a shock absorbing seal to keep out liquids, dust and grease. This shock absorbing seal enables to cover to be made of a lighter weight material while still protecting the terminal cover

To use the simplest embodiment, the cover is simply placed over a bankcard terminal lying on a table, counter, or other support surface, when not in use. To utilize the bankcard terminal, the cover is then lifted and removed to access the bank card slot and keyboard. If desired, a handle may be included on the top exterior of the cover to aid in its removal and replacement.

Preferably, the cover is made of single piece construction made of a lightweight rigid material, such as nylon, plastic, or other rigid materials, which prevent accidental damage to the bankcard terminal. These materials are readily injection molded into the desired shape to form a cover of single piece construction. To insure that the terminal is online, preferably the cover is constructed of a transparent material to enable visual inspection of the terminal display.

In one preferred embodiment for wall mounted bank card terminals, the cover has attachment means, such as corresponding hook and loop strips or hinges associated with the top of the bank card terminal to swing in a first mode to provide access to a bank card terminal keypad and card reading slot. The cover is then closed over the bank card terminal when not in use

Description of the Drawings

Fig. 1 illustrates a perspective view of one preferred embodiment of the invention.

Fig. 2 illustrates a rear view of the embodiment of the invention shown in Fig. 1.

Fig. 2a illustrates a top view of a preferred embodiment of the invention.

Fig. 2b illustrates a rear view of the embodiment of the invention shown in Fig. 2a.

Fig. 2c illustrates front view of the embodiment of the invention shown in Fig. 2a.

Fig. 2d illustrates a side view of the embodiment of the invention shown in Fig. 2a.

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Fig. 3 illustrates another preferred embodiment of the invention.

Fig. 4 illustrates another preferred embodiment of the invention.

Fig. 5 illustrates another preferred embodiment of the invention.

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Description of the Illustrated Embodiments

Fig. 1 illustrates the simplest embodiment of the invention 10 which comprises a transparent crush resistant terminal cover 12 with a top 14 and sides 16 defining an open bottom 18 structured and sized to fit over a bank card terminal processing machine. The cover 12 has hook and loop strips 17 attached to its underside, which adhere to corresponding hook and loop strips 17 attached to the top of the bank card terminal processing machine.

The cover 12 material is also resistant to liquids, dust, and grease. The sides 16 fit about and cover the bankcard terminal when placed over the terminal on a support surface. The sides 16 of the cover 12 contact the support surface to transfer the force from an accidental blow away from the bank card terminal and onto the support surface. The sides 16 have at least one opening 20 shown in Fig. 2 through which telephone terminal cords may be inserted and connected to the bank card terminal.

To use this embodiment, the cover 12 is simply placed over the bank card terminal when not in use. To utilize the bankcard terminal, the cover 12 is removed to access the bankcard slot and keyboard. If desired, a handle 22 may be included on the top 14 exterior of the cover 12 to aid in its removal to access the bank card terminal key pad and card slot.

The embodiment shown in Figs. 1 and 2 are blow molded in a single piece made of rigid transparent nylon or plastic to enable visual inspection of the terminal displays. Fig. 2a illustrates a top view of a preferred embodiment of the invention. The cover 12 is a single piece of transparent plastic with the handle 22 incorporated in the single piece design. The rear of the cover 12 has an opening 20 shown in Fig. 2b through which terminal cords are connected to the bank card terminal. The front 23 of the cover 12 is shown in Fig. 2c. The top side 16 defines another power cord opening 20 and has a top 23 which gradually slopes upward toward the rear opening 20 as shown in Fig. 2c and 2d

Fig. 3 illustrates a cover 12 with hinges 24 which attach to a hinge mounting bar 26 attached to the top of the bank card terminal. It opens in a first mode to provide access to a bankcard terminal keypad and card reading slot. It is then closed about the bank card terminal

when not in use in a second mode to prevent accidental contact and damage from dust, grime, liquids, and other matter which interfering with the bank card terminal key pad and card reading slot electronics. The perimeter of the sidewalls defining the bottom opening is covered by a shock absorbing seal 27.

Fig. 4 illustrates the cover 12 shown in Fig. 1 adapted with a bottom 28 which is structured to removably seal to the cover 12 to totally encase the bank card terminal. Fig. 5 illustrates another encasement variation with a bottom 28 with upstanding walls 30 which are hingedly associated with a hinged cover 12 to open and close as shown. The encased embodiments of Figs. 4 and 5 are adapted especially for use outdoors to prevent rain damage of the bank card terminal.

Although this specification and referred to the illustrated embodiments, it is not intended to restrict the scope of the appended claims. The claims themselves recite those features deemed essential to the invention.